

REMARKS/ARGUMENTS

Statement of the Substance of the Interview

Applicant's representative thanks the examiner for extending the courtesy of conducting a telephone interview on 20 May 2008. During the interview, U.S. Patent No. 4,992,933 to Taylor was discussed. Applicant argued that in Taylor there was no "selecting from among the received data" because in Taylor the data arrives at the appropriate processing element at the end of execution of the command. Applicant believes that it is only after reading applicant's disclosure that one might characterize Taylor as "selecting" the last data received. The examiner reiterated the positions set forth on page 16 of the Office action dated 02/19/2008, first and second full paragraphs. Applicant's representative agreed with the statement in the first paragraph that the invention cannot literally select "at any point during the execution of commands" because of the invention being a clocked system. No agreement was reached with respect to the interpretation set forth in the second full paragraph on page 16 of the Office action.

35 U.S.C. § 103 Rejections

In paragraph 4 of the Office action, claims 1-2, 5-11, 15-16, and 19-26 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Taylor (U.S. Patent No. 4,992,933) in view of Barker (U.S. Patent No. 5,963,746). In response, independent claims 1, 5, 8, 16, 20, 23, and 26 have been amended. Support for the amendments is found in at least the following paragraphs from the published application:

[0066] In operation, an input matrix of data is placed on the shift network, and moved around by using a combination of north, south, east and west shifts. In addition, the column select register 59 and row select register 61 may be used to determine which of the PEs is active. The exact combination of active PEs, instructions, and direction in which the instruction (shift) is performed will depend upon the particular array manipulation required. As the instructions are executed and the shifting proceeds, each PE will be presented with different array values. For example, if a wrap shift is performed a number of times equal to the number of PEs in a row, each PE in the row will see every value held by all of the other PEs in the row.

[0067] A PE can conditionally select any of the values it sees as its final output value by conditionally loading that value, which is representative of an output result matrix. However, only one value, the desired result, is loaded. (emphasis added.)

There is no disclosure in Taylor of selecting from among the received data, where each of the received data is a candidate for selection because Taylor uses a very different control scheme. In Taylor, the data arrives at the correct location at the end of the execution of the command. As discussed in the example in Taylor in column 9, beginning at line 36:

[E]xactly M steps along the path leads to the correct processing element for the mapping. The North West quadrant of one possible way of setting out the set of loops for a 32 by 32 processor array is illustrated in FIG. 6. The remaining quadrants can be inferred by rotational symmetry.

It will be noticed that some loops are shorter than others and some have a clockwise and some an anti-clockwise direction of shift as indicated by the arrows. However, the common factor for each of the loops is that a bit which is shifted 33 times along the loop on which it is located will end up in the corresponding position in the adjacent quadrant. In other words, in 33 steps, the whole array is rotated by 90 degrees. No individual count is necessary for each processing element and no selection among the received data at any time during the execution of the common command is required.

As is apparent from the foregoing quotation, there is no ability to select from among the received data, where each of the received data is a candidate for selection.

The addition of Barker does not supply the missing teachings. Even if Barker does provide a motivation to keep a count in individual processing elements, the control scheme of Taylor does not enable the selection of data from among the received data, where each of the received data is a candidate for selection. The rejection of the independent claims under 35 U.S.C. § 103 based on Taylor in view of Barker should be withdrawn.

At this time, applicant has not addressed the rejection of the dependent claims inasmuch as it is applicant's position that all of the independent claims are now in

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condition for allowance. Applicant reserves the right, at a later date, to argue the patentability of the dependent claims separately should that become necessary.

Applicant has filed herewith an Information Disclosure Statement to bring to the examiner's attention prior art which has been cited in certain related applications.

Applicant has made a diligent effort to place the instant application in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the examiner is of the opinion that the instant amendment does not place the currently pending claims in condition for allowance with respect to the art of record, the examiner is respectfully requested to contact applicant's attorney at the telephone number listed below so that additional amendments may be discussed.

Respectfully submitted,



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